	Number of Households for interviews:		Number of Children 6-59 months to be weighed and measured:	
	Achieved	(Target)	Achieved	(Target)
Mirak	36	(36)	84	(196)
Qarca	44	(60)	192	(327)
Kohna Deh	12	(12)	58	(65)
Jangalak	25	(24)	136	(131)
Jamal	12	(12)	49	(66)
Nialkhan	13	(12)	28	(65)
TOTAL	142	(156)	547	(850)

3.3.4 In each of the selected villages an initial household was selected. The interviewer went to the centre of the village where she spun a pencil to choose a direction at random. She then moved in that direction in as straight a line as possible, from the centre to the edge of the village, and counted all the compounds along this route. She then selected a random number from a list between 1 and the number of doors counted. Interviewing started in the compound with that number.

3.3.5 In the initial compound selected, each household was identified and included in the survey. Interviews were carried out with the female head and with the mother of the youngest child in each household. Using a calendar of Islamic and Persian religious holidays and festivals, the age of young children was determined, and all those aged 6-59 months were weighed and measured in these households. The interviewer then proceeded to the compound whose door was nearest to that of the selected compound, and further interviews were carried out in the households in that compound. This procedure was repeated until the target for household interviews was achieved for that village. The interviewer and assistants then continued to select households in this way, but only weighed and measured the children aged 6-59 months and collected data on vaccinations received. This continued until the target number of children had been weighed and measured.

3.3.6 At the time of writing it has not been possible to find out from the interviewer why the targets for weighing and measuring children were not achieved in some of the villages. However, it seems likely that either there was an overestimation of the population in these villages, or there were difficulties in finding enough children to weigh and measure in the time available. Although the smaller sample size results in wider confidence intervals on malnutrition rates, representativeness seems unlikely to be greatly affected.

3.4 Data collection and questionnaires

3.4.1 In a selected household the interviewer was instructed to find the woman considered as the female head. She then interviewed her using Section A of the questionnaire (see Appendix). The questions were designed to provide information on household composition, length of residence, and reason for any temporary migration to other areas. Questions on hygiene were asked in order to collect data on water sources, hand washing, disposal of rubbish, and place of

defecation. Questions on food were designed to find out the number of animals kept, crops grown for consumption in the household and for selling, and types of food bought and consumed. Some indication of economic circumstances was gained from these, and from other questions about sources of income. Questions were also asked about spending on major items such as food, medicines, fuel, and farming. No direct question on household income was asked because of its sensitivity, and because answers were unlikely to be reliable.

3.4.2 A second interview was carried out with the mother of the youngest child in the household. Questions in Section B of the form were asked to provide data on breastfeeding , supplementary feeding, recent sickness in the youngest child, action taken in the case of different kinds of sickness, and willingness to pay for medical treatment.

3.4.3 The third part of the questionnaire, Section C, was completed in an interview with the mothers of children under 5 in the household. Details about vaccinations received were recorded and all the children weighed and measured.

3.4.4 Children were weighed using a Salter spring scale, which had been checked for accuracy with a 5 kilogram weight. Height was measured with a wooden height board previously used in a nutrition survey in NWFP Province, Pakistan by the Fruit and Vegetable Development Board women's programme. The interviewer was instructed to measure children under 2 in the supine position.

3.5 Training of interviewer

3.5.1 Only one week was available for training the interviewer during a visit to Peshawar. She was a qualified Afghan nurse sponsored by SC-US and living in Qarca village, Qarabagh. Her main language was Dari (Farsi). Questionnaires had to be translated into Farsi and then back into English as a check. The training of the interviewer was carried out by the MSF survey manager and one of the interviewing team. They were assisted by an interpreter who spoke both Dari and English.

3.5.2 Training consisted of two sessions in which the questions were explained to the interviewer, and a further session at which instruction was given on recording the information. Only one day was available for field-testing the questionnaire. This was done in an Afghan refugee camp near Peshawar. Interviews were completed in two households where Dari was the main language. The interview went very slowly because of the lack of familiarity with the questions. However, there appeared to be no serious problems understanding the questions or in recording answers. The minor problems were discussed at a debriefing session.

3.5.3 The interviewer was trained in the use of the scales and measuring board, and asked to weigh and measure about 20 children during the field-test. She received instruction about her role, and about that of an assistant whom she would have to train on her return to Qarabagh. This assistant's role was to hold the child while the nurse read the measurements and recorded them.

3.5.4 Interview training continued after the field-test with some role play exercises designed by the survey manager. This gave the interviewer practice in a more relaxed environment. Instruction was then given on sample selection, who

to interview, and the number of interviews to be obtained in each village. The interviewer returned to Afghanistan on 12 June and carried out interviews from 5 July - 7 August 1992. Completed questionnaires were brought to Peshawar at the end of August by other SC-US staff working near Qarabagh.

3.6 Data analysis and indicators of malnutrition

3.6.1 Data from the questionnaires were entered into the Epi-Info software package. A sub-module Epi-Nut was also used which calculated z-score values (standard deviation units) for the main anthropometric indices: weight-for-height and height for age. The analysis was carried out by the technical adviser on health surveys with MSF-Holland, Peshawar. Cross-tabulations of frequency of different household characteristics were produced. The relationships between some of these characteristics and the outcome measures based on weight, height, and age, and sickness in the last two weeks among the youngest chidren in the households, were also investigated.

3.6.2 Z-scores give the difference between a given measurement for an individual child and the mean of the reference population. Here the US National Centre for Health Statistics (NCHS) reference standard has been used. If, for example, a child's length is 2 standard deviations below the mean length in the reference population, the z-score is - 2.

3.6.3 It is important to distinguish between deficits in weight-for-height and height-for age, since these represent different processes of malnutrition (WHO, 1989). Children with weight-for-height z-scores < -2 are considered to be suffering from acute global malnutrition. They are wasted. Two sub-categories have been distinguished: those who are moderately malnourished if the weight-for-height z-score is < -2 and >= -3, and severely malnourished if it is < -3. On the other hand, children who have a deficit in height-for-age (z-score < -2) are stunted, which is more a long-term effect of undernutrition, disease, and other factors affecting growth.

3.6.4 Because of age-related differences in the prevalence of wasting it is preferable to analyse data on weight and height for a sub-group of the 6-59 month age group who may be more at risk. The age group 6-24 months has been considered here.

4. RESULTS

4.1 Successful interviews

4.1.1 A total of 142 household interviews were successfully completed. This was 14 less than the target, due largely to a shortfall in Qarca. A total of 547 children under 5 years of age were weighed and measured, and 259 of these were from the 142 households where the main interviews were carried out. The main shortfall in the target was in Mirak and Qarca. These were the largest villages with an estimated 19.7% and 48.8% of the study population. The children weighed and measured in these villages were still 15.4% and 35.5% of the total, and the representativeness of the sample should not be greatly affected.

4.2 Demographic characteristics of households

4.2.1 Of the 142 households surveyed, for which tribal affiliation was recorded, 24 were Pakhtoon and 115 Hazara. This was approximately the same ratio of 1:5 as in the estimated total population of the survey villages.

4.2.2 The number of people in a household ranged from 4 to 30. The mean household population size was 9.2 for Hazara households and 11.8 for Pakhtoon households. Table 1 shows that there were between 1 and 7 children aged under 5 in each household, with on average 2.3.

4.2.3 About half of the female heads of household had lived somewhere else in the last five years because of fighting, mostly in another village rather than in Pakistan or Iran.

4.3 Sources of income

4.3.1 Only 10 households reported growing food for sale. Table 2 shows that 26 households (18.3%) reported trading animals as a source of income. Other kinds of trading and shopkeeping were reported as a source of income by 7.0% of households. A few households reported income from driving work and bicycle repair. When asked specifically about women doing craftwork, 53 households reported this as a source of income. Most households reported some source of income even if it was only help from others or money from relatives in Iran and Pakistan. By far the most frequent source of income was daily labour which was reported by 41.5% of households. The work is mostly in the fields.

4.3.2 Table 3 compares some of the characteristics of households with income from daily labour with those of other households. The proportion owning animals was about the same, except that households with an income from daily labour had fewer chickens. The proportion of households growing their own food was about the same as for households with no income from daily labour. However, none of the 58 households with an income from daily labour sold crops. Furthermore, only one household with an income from daily labour had an income from a relative abroad, which was only 1.7% compared with 26.2% of the households with no income from daily labour.

4.3.3 Of the 58 households with income from daily labour, 27.6% reported that women worked in the fields, compared with 9.5% of other households, as shown in Table 3. Nearly all the households with an income from daily labour were Hazara, and all 24 with women working in the fields were Hazara. Of the ten households with women growing vegetables, 9 were Hazara and 1 Setarow.

4.4 Women working apart from housework

4.4.1 Table 4 shows some of the characteristics of these Hazara households with women working in the fields. First, they are more likely to have animals, and all except one have at least one cow or buffalo. They are also more likely to be growing their own food, with 87.5% doing this compared with 60.2% of households in which women do not work in the fields. Hazara households without women working in the fields are no more likely to be growing their own food, as only 60.9% of them do this.

4.4.2 Households with women working in the fields were also more likely to have an income from daily labour. Two-thirds had such a source of income compared with about one-third of other households. On the other hand, households with women working in the fields were less likely to have other sources of income. Only one had an income from selling crops, and only one had relatives sending money from abroad. Also households with women working in the fields were half as likely to have women doing craftwork.

4.4.3 As mentioned, women were doing craftwork in 53 of the 142 households, which was 37.3%. The data in Table 6 show that making clothes, basketware, and knitting were mentioned as specific activities in 21.1%, 4.2%, and 4.2% of households respectively.

4.5 Household spending on major items

4.5.1 All 53 households with women doing craftwork reported that they spent some of the money on clothes. In nearly all these households (94.3%) the women spent some of the money on medicines. About half of the households (52.8%) reported that some of the money was spent on food, 26.4% spent money on jewellery, and 11.3% on ceremonies.

4.5.2 Table 7 shows the proportion of the total household income which was spent on major items. Food was the main item of expenditure with 88.1% of households reporting some spending on it. In fact, 78.9% of households reported spending over half their income on food. Medicine was the second most important item of expenditure, with 61.9% of households reporting spending something, and 28.9% of households spending over half their income on it. Only 38 households (26.7%) reported spending any of their income on farming.

4.5.3 Most households (87.3%) reported spending money on fuel. Table 8 shows the variation in the amount spent. The average reported expenditure on fuel was just over 100,000 Afghanis per year (approximately US$ 125). Nearly all households reported using cowdung as a fuel for cooking (97.2%), and over half also used wood or bushes (57.7%). Kerosene was mentioned by only 26 households.

4.5.4 Table 9 shows the main characteristics of the 18 households which did not report spending money on fuel. All except one of the households were Hazara. All except one had at least one cow or buffalo which would provide dung for fuel.

4.6 Keeping animals and growing food

4.6.1 Another indication of economic circumstances is the number of animals kept by a household. Nearly all households have some animals. Table 10 shows that 83.8% of households have at least one cow or buffalo, 60.0% have at least one sheep or goat, and 85.2% have at least one chicken. However, not many households had more than 2 of these animals. Only 19.7% of households had 3 or more cows, 39.4% had more than 3 sheep or goats, and 40.8% had more than 3 chickens.

4.6.2 The data in Table 11 show that 49 households, which was 34.5%, do not grow any of their own food, while 45.8% grow half or less of the food they eat. Twenty-seven households (19.0%) grow more than half the food they eat and 10 of these grow all their own food.

4.6.3 Table 12 shows that of the 49 households not growing any of their own food, 65.3% had cattle compared with 93.5% of households which grow their own food. Households not growing their own food were also slightly less likely to keep sheep or goats. They were not so likely to have women who worked in the fields, but more likely to have some income from daily labour.

4.6.4 The households not growing their own food tended to be smaller, with fewer men, women, and children. Nearly 80% of these households were Hazara which tend to have fewer men, women and children, as shown in Table 5.

4.7 Types of food grown and consumed

4.7.1 The types of food grown are shown in Table 13, with the most common being wheat, grown by 65.5% of households, potatoes by 62.7%, onions by 59.9%, and tomatoes by 49.3%. Fruit trees were grown by 35.2% of households. Other foods frequently grown were carrots, cucumbers, leeks, melons, squash, turnips, and barley.

4.7.2 Table 14 shows that nearly all households which grow their own vegetables have at least one cow or buffalo. For example, 67 of the 70 households growing tomatoes had one of these animals, 86 of the 89 growing potatoes, 82 of the 85 growing onions, and 36 of the 37 growing carrots. On the other hand, households growing their own vegetables were no more likely to have chickens, and only slightly more likely to have sheep or goats.

4.7.3 The main crops grown for sale were onions, wheat, potatoes, leeks, fruit, barley and tomatoes, as shown in Table 13. Five of the 10 households growing crops for sale reported that they would borrow money to do this. A further 20 households not yet growing crops for sale reported that they would borrow money to do this.

4.7.4 Table 15 shows the types of food regularly bought from the market. The most common foods which respondents mentioned were: tea, mentioned by 93.7% of households, rice by 83.1%, ghee by 69.0%, salt by 66.2%, sugar by 52.1%, flour by 41.5%, candy by 32.4%, oil by 22.5%, and spices by 4.9%. Only 19.7% of households reported buying meat regularly. The main foods bought in the last two weeks were tea, by 31.0% of households, rice by 26.1%, and ghee by 17.6% of households.

4.7.5 Table 16 shows the foods which were eaten the day before the interview. The most common basis for the meal appeared to be onions, lassi and bread. Nearly all households reported eating bread the day before (93.0%), while 71.8% drank lassi and 67.6% ate onions. Rice was eaten the day before by 22.5% of households and fruit by only 20.4%. Altogether 98.6% of households reported eating rice, while 81.0% ate potatoes and 71.8% tomatoes.

4.8 Prevalence of malnutrition among children under 5

4.8.1 The survey provided usable data on weight and height for 509 children aged 6-59 months. These included 248 boys and 261 girls. Table 17 shows the percentage of children malnourished at ages 6-23, 24-59, and 6-59 months.

4.8.2 Of the 509 children aged 6-59 months, 6.1% were suffering acute global malnutrition (defined as weight-for-height z-score < -2: ie. more than 2 standard deviations below the mean for the reference population). Only 0.6% of children under 5 were severely malnourished (weight-for-height z-score < -3). There was a higher proportion of boys acutely malnourished (7.7%), compared with girls (4.6%), but the difference was not statistically significant.

4.8.3 Of the 193 children aged 6-23 months, 11.4% were suffering from acute malnutrition, with a slightly higher proportion among the boys. Among children aged 24-59 months, the prevalence of acute malnutrition was much lower at 2.8%. Prevalence among the boys was twice that among the girls, but again the difference was not statistically significant at the 95% level of confidence.

4.8.4 Data on height and age were available for 306 children aged 24-59 months, and 71.2% were stunted (height-for-age z-score < -2). Data were available for 189 children aged 6-23 months, and 52.9% were stunted. For both age groups there was little difference between the prevalence of stunting among boys and girls.

4.9 Malnutrition and feeding practices

4.9.1 From the 142 interviews with the mother of the youngest child in each household, it was found that 43 had stopped breastfeeding. Of these mothers 20.9% had stopped breastfeeding at 6 months or under, 30.2% at 12 months or under, and 69.8% when the child was over 12 months old. For the 10 children who were of "normal" weight-for-height (ie. => the mean of the standard population), the proportion who had stopped breastfeeding at over 12 months of age was slightly higher at 80%, but the difference was not statistically significant.

4.9.2 Of 93 mothers still breastfeeding the youngest child in the household, 89.2% were giving supplementary food. The proportion of mothers starting supplementary feeding at the recommended age of 4 months was only 12.4%. Supplementary feeding was started at 0-2 months by 25.8% of mothers, at 3-5 months by 39.4%, and at 6 months or more by 33.6% of mothers.

4.9.3 Table 18 shows the first supplementary food that was given to the youngest child. The most common first foods were fresh milk, mentioned by 15.8% of mothers, sujee (milk and wheat flour) by 15.8%, yoghurt by 11.8%, tinned baby food by 9.2%, and powdered milk by 7.9%. Of the children who were "normal" weight-for-height, 46.1% were given fresh milk or sujee, compared with 31.6% of children below the standard weight-for-height. "Normal" children were also less likely to have been given baby food or powdered milk (11.1%), compared with children of low weight-for-height (17.1%). None of the "normal" weight-for-height children were given bread as first food, compared with 10.5% (8) of the low weight-for-height children.

4.9.4 Of the 71 mothers who were breastfeeding, 66 (93.0%) reported using a spoon to give supplementary food, 4 said they gave food by hand, and only 1 used a bottle.

4.9.5 In response to the question on feeding practices when the youngest child has diarrhoea, 20.4% of mothers said they gave the child less to drink. The data in Table 19 show that the proportion was slightly higher for children who were acutely malnourished, but there were only 3 cases. The proportion of mothers who gave the child less food when it had diarrhoea was 81.8% for the acutely malnourished and 65.9% for other children, but the difference is not statistically significant.

4.10 Malnutrition and household circumstances

4.10.1 The variation in the prevalence of malnutrition among the six villages is shown in Table 20. In the biggest village, Qarca, only 4.6% of children under 5 were acutely malnourished, and 4.4% in the second largest village, Jangalak. In the next largest village, Mirak, the prevalence was 11.0%, but the confidence intervals on these prevalence rates are too wide for the difference to be statistically significant.

4.10.2 Table 20 also shows that there was no difference in the prevalence of acute malnutrition among children in Pakhtoon and Hazara households, although numbers were very small. A slightly higher proportion of Pakhtoon children in the sample were found to be less than normal weight-for-height. Again this difference is not statistically significant.

4.10.3 Table 21 shows that when housholds were grouped according to "high" and "low" numbers of animals, the prevalence of acute malnutrition was not greatly different at 5.2% and 6.3% respectively.

4.10.4 Table 22 shows that when malnutrition rates are compared for housholds which grow none, some, or most of their own food, there is a gradient. The proportion of children of "normal" weight-for-height was 20.2%, 34.5% and 36.0% respectively. The prevalence of acute malnutrition was 7.3% in households which grow none of their own food, compared with 5.5% in those which grow some of their own food. None of the 25 children in households growing most of their food were found to be acutely malnourished.

4.11 Sickness among children under 5

4.11.1 The incidence of sickness of different kinds in the last two weeks among the youngest children in households is shown in Table 23, together with the action taken. The most common complaint was fever reported in 85.3% of children, while 23.8% had fever with chill. Diarrhoea was reported for 76.9% of children, cough for 72.7%, vomiting for 53.8% and skin problems for 42.7% of children. Difficulty in breathing was reported for 31.5% of children. Ear infections and sore throats were also common. For most causes of sickness in children under 5 medicines were bought, in at least 80% of cases. A doctor was consulted in at least 70% of cases. A health worker was consulted in 20-30% of cases of most types of sickness, but a hakim was not often consulted. Homemade preparations were used in 15-50% of cases, but were not often used for fever with chills or

convulsions. Households were even more likely to see a doctor (93.0%) and use medicines (96.0%) when someone else in the family was sick.

4.12 Vaccination of children under 5

4.12.1 Willingness to take appropriate action in relation to child sickness is also reflected in the acceptance of vaccination. The proportion of children who had received at least one vaccination against tuberculosis with BCG, or for diphtheria/pertussis/tetanus (DPT), polio (OPV), and measles, is shown in Table 24. Of the 547 children surveyed, 61.1% had a vaccination card. Of the 325 children with a card, 72.0% had a BCG scar and 97.5% were reported to have had the vaccination. A DPT vaccination was reported for 77.2% of children with a card, measles for 68.6%, but OPV for only 26.6% of children. Among the children for whom there was no vaccination card, reported coverage was much lower for BCG, DPT and measles, and only 35.7% had a BCG scar. Only 10 of the mothers interviewed reported having a tetanus injection.

4.13 Hygiene

4.13.1 There is some evidence from the survey of the association between child sickness and poor hygiene, sanitation and water supply. Data in Table 25 show that in the 12 households using spring water 58.3% of the youngest children had diarrhoea in the last two weeks. In comparison, 80% of the 105 youngest children in households using canal water had diarrhoea in the last two weeks. The proportion was about two-thirds for the other sources, and overall about three-quarters of the youngest children had diarrhoera in the last two weeks.

4.13.2 Mothers of the youngest child in the household all reported washing their hands before cooking and before eating, but only 56.3% said they washed their hands after defecating. About two-thirds of mothers reported having soap in the household. Only one-third of mothers reported using soap for washing their hands. Table 26 shows that there was little difference in the prevalence of diarrhoea among the youngest children in households with or without soap, which was 73.7% and 78.7%, respectively. Similarly the prevalence of diarrhoea was about the same for children of mothers who used soap (71.4%) and of those who did not use soap (77.4%). There was also little difference in the prevalence of diarrhoea among children of mothers who washed their hands after defecating (72.5%) and those who did not (79.0%).

4.13.3 Table 27 shows the normal place for defecating used by children, women and men. Most children, 71.8%, defecated in the compound and 26.8% outside the compound. About one-quarter of women defecated outside the compound, but 72.5% used a latrine. On the other hand only 44.2% of men used a latrine, with 52.4% defecating outside the compound. The data in Table 26 show that there was little difference in the prevalence of diarrhoea among children in relation to the place of defecation used by their mothers or fathers. About three-quarters of the children had diarrhoea, whether their parents used a latrine or not.

4.13.4 Table 28 shows that most households (87.3%) put rubbish in a heap outside the compound, but they do not burn it. In fact only 5 households said they burned their rubbish and only 11 households used a pit.

5. DISCUSSION

5.1 The high levels of sickness found among the youngest children may be affected by seasonal factors, particularly in the case of diarrhoeal disease. However, both diarrhoeal disease and fever were reported in over three-quarters of these children. It is possible that recall of sickness was not confined to the two week recall period. However, the data probably give a good indication of relative incidence of different types of sickness. For the most commonly reported sickness, diarrhoea, the causes in young children are likely to be faecal contamination of their hands and food, and of water. The use of canal water by a household was associated with a higher risk of diarrhoea among the youngest children. However, with data from only 142 households it was not possible to control for confounding factors. The frequency with which vomiting is reported suggests that gastro-intestinal disorders related to contaminated food were common. Malaria may be quite common in view of the high incidence of fever. The action taken by parents when the youngest child is sick, suggests a high degree of acceptance of the role of medicines and doctors. About one-quarter of households reported paying doctors fees, and nearly all paid for tests to be done. All households reported that they would be interested in more health facilities near their village. The high coverage of vaccination among mothers who had a vaccination card for their youngest child, is again an indication of the acceptance of "modern" health interventions. Among the 60% of children for whom there was a card, 72.0% had a BCG scar, while measles and DPT vaccinations were reported for a similar proportion of their children.

5.2 The prevalence of acute malnutrition among children aged 6-59 in the study villages was quite low, at 6.1%. This is the same as a recent estimate for children under 5 in the adjacent Province of Balochistan, Pakistan (NIPS, 1992). The higher proportion of malnutrition among boys than among girls is also consistent with the findings in Pakistan. As might be expected, the prevalence of malnutrition was much higher at ages 6-23 months, at 11.3%. Wasting is more common between 12 and 24 months as a result of dietary deficiencies and more frequent diarrhoeal disease in the weaning period (WHO, 1989). About one in five mothers had stopped breastfeeding too early, before the child was 6 months old. The use of supplementary food is recommended from about 4 months, but about one-third of mothers had started earlier than this when a baby is particularly prone to gastro-intestinal infection. Most mothers appear to have been using the correct method of giving food , with a spoon. However, some of the first foods used may have been detrimental to the very young infant's health. More of the children below standard weight-for-height had been given tinned baby food or powdered milk which may have been diluted with water. Inappropriate responses to diarrhoea in a young child probably also contributed to weight loss. One in five mothers gave a child less to drink when it had diarrhoea, and two-thirds gave less food.

5.3 The survey suggests that in addition to weaning and child care practices, availability of food has been contributing to the risk of malnutrition among children under 5. Families which reported growing some of their own food were less likely to have malnourished children. On the other hand, a lack of animals did not appear to be strongly linked with child malnutrition. The data from Qarabagh show the long-term effects of poor nutrition and disease in a high prevalence of stunting. At ages 6-23 months 52.9% of children were stunted, and

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by

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MSF-Holland, Peshawar
October 1992

71.2% at ages 24-59 months. It is known that the distributions of weight-for-height and height-for-age show different patterns at different ages. The prevalence of stunting increases over time up to age 24-36 months (WHO, 1989). The overall prevalence of stunting at ages 6-59 months of 64.2% in Qarabagh is not unusual for rural populations in Asia (WHO, 1989). It is similar to the prevalence of 70.8% found among children under 5 in Balochistan (NIPS, 1992). The fact that few children aged 24-59 months were found to be acutely malnourished, suggests that there has been no recent crisis in food availability. However, many households appear to have eaten mainly onions, lassi and bread the day before the interview. Seasonal factors may have had an influence on diet at the time of the survey, since tomatoes, cucumber, pumpkin, potatoes, and carrots were eaten regularly but not in many cases the day before. The fact that few households reported buying fruit, while only one-third grow it, suggests there may be some dietary deficiency in this respect in many households. However, it should be borne in mind that there were no checks on the completeness of reporting on these questions about types of food.

5.4 Households not growing any vegetables were much less likely to have buffaloes or cows. In general, households not growing any of their own food appear to be worse off. Not growing food and not having cattle might indicate a lack of land. Even so, households not growing their own food also had fewer chickens which do not require land outside the compound. Households not growing their own food also spend less money on fuel despite the fact that they are more likely to have some income from daily labour. Daily labour itself does not appear to greatly inhibit crop growing, since 60.3% of households with an income from daily labour grow crops compared with 67.8% of households with no income from daily labour. The lower spending on fuel by households with an income from daily labour supports the idea that both daily labour and lack of crop growing are indicators of poverty. On the other hand, lower spending on fuel by households with women working in the fields might be explained by the fact that nearly all these housholds had buffalos or cows which are a source of fuel. The contribution of women working in the fields to the household economy is reflected in the high proportion of food grown by these households.

6. CONCLUSIONS

6.1 In terms of the objectives of the survey in Qarabagh, many deficiences in basic household needs have been identified. Some of these are known to underlie poor health and to inhibit the growth of children, and this has long-term consequences for their development and productivity. Data useful for planning programmes have also been collected, about types of sickness, and malnutrition levels among young children, and about feeding practices. The prevalence rate of acute malnutrition at ages 6-59 months, of 6.1% is credible given the recent findings in Balochistan. The higher rate of 11.4% at ages 6-23 months suggests poor weaning practices and the effects of diarrhoeal disease for which reported incidence in the last two weeks was very high. The relatively low rate of acute malnutrition of 2.8% at ages 24-59 months, suggests there has been no major food crisis in the area recently. However, about 70% of children under 5 are below the standard weight-for-height. About the same proportion are stunted which is an indication of the cumulative effect of poor nutrition and sickness.

6.2 The living arrangements of households with large numbers of children in a compound are highly conducive to the transmission of infectious diseases, particularly respiratory and gastro-intestinal infections. Other aspects of poor living conditions and lack of resources contribute to high morbidity rates. For example, only one-third of households have their own well, so most are not able to protect their water source from contamination. Three-quarters of households get water for drinking from a canal, and there is some association with a higher risk of diarrhoea among young children. About one-quarter of households did not use a latrine, and men in particular defecate on open ground which increases the risk of fly-borne contamination of food and hence diarrhoeal disease.

6.3 The deficiencies in basic household facilities are linked with the restricted sources of income and limited resources available to most households. Daily work in the fields and trading animals are the main sources of income, but only for about half the households in the survey. A few households have relatives who send money from Iran or Pakistan. About one-third of households contained women who did craftwork. This was a source of income which was mainly spent on clothes and medicines. Only a small proportion of households contained women who worked in the fields. About one-third of households did not report growing any of the food they used. Very few households reported growing crops for sale, but there was some interest in the idea of borrowing money to do this. The main foods grown for household use were wheat, potatoes, onions, and tomatoes. Other vegetables and fruits were grown by a much smaller proportion of households. Onions, potatoes, tomatoes, rice, ghee, and bread/flour were regularly bought, although onions, lassi and bread appears to have been the basic meal on the previous day for many households. Fruit does not seem to be a major item in the diet of about two-thirds of households, although this could reflect incomplete reporting.

6.4 In terms of the objective of the survey to collect data on which to develop the activities of SC-US in Qarabagh, there are clear implications of the findings. First, the fact that the local nurse/midwife was able to collect so much information in such a short space of time, indicates both her determination and the cooperation of the women in the villages where she works. In fact people in the other villages not surveyed have requested interviews, fearing that they might not benefit from any programmes based on the survey. Generally the survey is encouraging for the MCH project and other activities in the area. Useful information is now available as a baseline for the evaluation of interventions. These can include education to alter practices which do not require much additional resources. Lack of knowledge about disease transmission can be overcome by educating parents and children about the importance of personal hygiene, and the link between contamination of hands, food, and water, and diarrhoeal sickness. Flies are a major source of contaminated food, and many households increase the risk of infection by not burning their rubbish, by not digging a pit to bury it, and by defecating on open ground. The installation of latrines, household wells, and the provision of soap would improve the basic hygiene conditions of many households.

6.5 In addition to education on hygiene, the MCH clinics could provide advice on feeding practices and child care. Mothers need education about the importance of starting breastfeeding immediately after birth and continuing for longer than 6 months. Many do not begin supplementary feeding at the best time,

around 4 months old. There is also a need for advice about the best foods to use for infants, and the need to take care not to use water which may be contaminated to dilute food. Deficiencies in diet alone are not responsible for a high proportion of children being below the standard weight for their height. Particularly at ages 6-23 months, poor weaning practices, poor hygiene and inadequate child care during sickness, are likely to have inhibited growth as much as inadequate nutrition. Many parents in Qarabagh clearly need education about how to look after a sick child, for example by increasing the amount of food and drink during an episode of diarrhoea. Medicines appear to be widely used and parents do appear to seek treatment when their child or someone else is sick, particularly from doctors. Most respondents were interested in new facilities such as a clinic being located near their village, and in learning about food, hygiene, health and sickness.

6.6 There also appears to be considerable scope for the extension of projects aimed at improving material standards of living. Income generation activities could be extended, as craftwork projects already provide some women with money to spend on essentials like medicines. Agricultural projects, such as growing vegetables and fruit trees, could address some of the deficiencies in diet. Many households spend a large amount of money on fuel, so that fuel efficient stoves could be an appropriate intervention. Other findings about household circumstances from this survey can be used as a guide for targetting interventions to those most in need such as those not growing any of their own food. The circumstances of individual households can be compared with the aggregate picture outlined here. The more specific outcome measures, of malnutrition and sickness, can be used to evaluate the integrated approach to the problems of health, nutrition and poverty that is planned by SC-US for villages in Qarabagh.

7. RECOMMMENDATIONS AND POSSIBLE INTERVENTIONS

7.1 The results from this survey provide a strong basis for diversifying the programme of SC-US in Qarabagh. The following recommendations will enable SC-US to formulate project proposals based on the needs of the target groups and will form the basis of a more integrated rural development approach in Qarabagh.

7.2 Production of fruits and vegetables

- Production of fruits and vegetables should be increased with the objective of promoting consumption of fresh fruits and vegetables.

- For women who are actively involved in actual production of vegetables, comprehensive extension of cultivation should be promoted.

- The focus of kitchen gardening should be on a diversity of vegetables with a high nutrient value, including spinach, tomatoes and carrots.

- Optimum use of limited space, including that inside the compound, should be emphasised.

- For those families with little land, commercial vegetable growing and fruit trees should be encouraged, including irrigation facilities.

7.3 Food preservation

- There should be more focus on preservation techniques for essential food items, including vegetable drying, pickles, and chutney.

7.4 Income generation

- Income generation, including craft, poultry, and kitchen gardening, combined with nutrition and health education, is an option aimed at improving the nutrition and health of the target groups.

7.5 Credit

- SC-US should initiate a credit programme to provide loans for various activities including commercial vegetable growing, micro-enterprises, fruit tree nurseries, and purchasing cattle.

7.6 Forestry

- Given the relatively high spending on fuel, there should be a forestry component of the programme. Because forestry is a long-term activity, attention should be given in the short-term to household management including improved stoves.

7.7 Water supply

- It should be investigated whether the construction of community water supply systems in the area is feasible. In combination with health education on hygiene, purer water supplies might result in a reduction in diarrhoeal disease morbidity. It could also save the time women now spend in collecting drinking water. This would give women more time for kitchen gardening which could also be stimulated by the provision of more easily accessible water.

8. REFERENCES

Boss LP, Brink EW and Dondero TJ (1984, 1985, 1986, 1987), Evaluation of Infant Mortality and Childhood and Nutritional Status among Afghan Refugees in Pakistan. (Centre for Disease Control, Atlanta).

Douglas JWB and Blomfield D (1958), Children under 5. (Allen and Unwin, London).

Goldstein H (1978), "Factors influencing the height of seven year old children - results from the National Child Development Study". Human Ecology, 6 (2), 27-54.

MSH (1991, 1992), Demographic and Health Household Survey in Wardak Province, Afghanistan. Demographic and Health Household Survey in Takhar Province, Afghanistan. (Management Services for Health, Peshawar).

Newberne PM and Williams G (1970), "Nutritional influences on the cause of infections". In: Resistance to Infectious Diseases. eds. Dunlop RH and Moon HW (Saskatoon Modern Press).

NIPS (1992), Pakistan Demographic and Health Survey, 1990/1991. (National Institute of Population Studies, Islamabad).

SCA (1988), The Agricultural Survey of Afghanistan, First Report. (Swedish Committee for Afghanistan, Peshawar).

WHO (1992), Global Nutritional Status, Anthropometric Indicators, Update 1989. (World Health Organisation, Geneva).

TABLE 1

HOUSEHOLD SIZE IN 6 SURVEY VILLAGES IN QARABAGH DISTRICT

	Number of persons in household	
	Range of values	Mean
Women	1-8	2.55
Men	1-8	2.64
Children (under 15)	1-14	4.43
Children under 5	1-7	2.30
TOTAL PERSONS	4-30	9.62
Pakhtoon	4-30	11.79
Hazara	4-22	9.19

TABLE 2

SOURCES OF INCOME FOR HOUSEHOLDS

Source of income	Number of households (N=142)	% of all households
Selling crops	10	(7.0%)
Trading Animals	26	(18.3%)
Other Trading/Shop	10	(7.0%)
Daily labour/fieldwork	59	(41.5%)
Driving	7	(4.9%)
Bicycle repair	2	(1.4%)
Shepherding	1	(0.7%)
Mullah	1	(0.7%)
Relative abroad	23	(16.2%)
Women's craftwork	53	(37.3%)

TABLE 3

CHARACTERISTICS OF HOUSEHOLDS WITH INCOME FROM DAILY LABOUR

		Households with income from daily labour (N=58)		Households with no income from daily labour (N=84)		
Buffaloes/cows:	None	12	(20.7%)	11	(13.1%)	
	1-2	35	(60.3%)	56	(66.7%)	
	3+	11	(19.0%)	17	(20.2%)	
	Mean	2.1		2.1		
Sheep/goats:	None	23	(39.7%)	34	(40.5%)	
	1-2	14	(24.1%)	15	(17.9%)	
	3+	21	(36.2%)	35	(41.7%)	
	Mean	4.2		4.4		
Chickens:	None	19	(32.8%)	12	(14.3%)	*
	1-2	25	(43.1%)	28	(33.3%)	
	3+	14	(24.1%)	44	(52.4%)	*
	Mean	2.9		4.6		
Proportion of food grown:						
None		23	(39.7%)	40	(47.6%)	
Half or less		25	(43.1%)	17	(20.2%)	*
More than half		10	(17.2%)	27	(32.1%)	*
Sources of income:						
Selling crops		-	(-)	10	(11.9%)	*
Relative abroad		1	(1.7%)	22	(26.2%)	*
Women doing craftwork		14	(24.1%)	39	(46.4%)	*
Women doing gardening		6	(10.3%)	4	(4.8%)	
Women working in fields		16	(27.6%)	8	(9.5%)	*
Spending on fuel (Afghanis 000s)		82.7		114.5		
Average number of people:						
Women		2.2		2.8		
Men		2.3		2.9		
Children		4.1		4.7		
Hazara households		54	(93.1%)	62	(73.8%)	*
Pakhtoon households		3	(5.2%)	21	(25.0%)	*

* Indicates that the difference in the two proportions is statistically significant at the 95% level of confidence.

TABLE 4

CHARACTERISTICS OF HOUSHOLDS WITH WOMEN WORKING IN THE FIELDS

		Women working in the fields (N=24)		No women working in the fields (N=118)		
Buffaloes/cows:	None	1	(4.2%)	22	(18.6%)	
	1-2	14	(58.3%)	77	(65.2%)	
	3+	9	(37.5%)	19	(16.1%)	*
	Mean	2.7		2.0		
Sheep/goats:	None	7	(29.2%)	50	(42.4%)	
	1-2	7	(29.2%)	22	(18.6%)	
	3+	10	(41.7%)	46	(39.0%)	
	Mean	4.2		4.3		
Chickens:	None	3	(12.5%)	28	(23.7%)	
	1-2	12	(50.0%)	41	(34.7%)	
	3+	9	(37.5%)	49	(41.5%)	
	Mean	3.1		4.2		
Proportion of food grown:						
None		3	(12.5%)	46	(39.0%)	*
Half or less		13	(54.0%)	52	(44.1%)	
More than half		8	(33.3%)	19	(16.1%)	*
Sources of income:						
Selling crops		1	(4.2%)	9	(7.6%)	
Relative abroad		1	(4.2%)	22	(18.6%)	
Daily labour		16	(66.7%)	42	(35.6%)	*
Women doing craftwork		5	(20.8%)	48	(40.7%)	
Women doing gardening		2	(8.3%)	8	(6.8%)	
Spending on fuel (Afghanis 000s)		63.0		108.8		
Average number of people:						
Women		3.1		2.5		
Men		3.0		2.6		
Children		4.1		2.4		
Hazara households		24	(100%)	92	(77.8%)	*
Pakhtoon households		-	(-)	24	(20.3%)	*

TABLE 5

CHARACTERISTICS OF HAZARA AND PAKHTOON HOUSEHOLDS

		Hazara Households (N=116)		Pakhtoon Households (N=23)		
Buffaloes/cows:	None	21	(18.1%)	1	(4.3%)	
	1-2	67	(57.8%)	22	(95.7%)	*
	3+	28	(24.1%)	0	(-)	*
	Mean	2.2		1.6		
Sheep/goats:	None	45	(38.8%)	10	(43.5%)	
	1-2	25	(21.6%)	4	(17.4%)	
	3+	46	(39.7%)	9	(39.1%)	
	Mean	4.5		3.0		
Chickens:	None	26	(22.4%)	4	(17.4%)	
	1-2	43	(37.1%)	9	(39.1%)	
	3+	47	(40.5%)	10	(43.5%)	
	Mean	3.8		4.8		
Proportion of food grown:						
None		40	(34.5%)	15	(62.5%)	*
Half or less		50	(43.1%)	1	(4.2%)	*
More than half		26	(22.4%)	8	(34.8%)	
Sources of income:						
Selling crops		8	(6.9%)	2	(8.7%)	
Relative abroad		17	(14.7%)	6	(26.0%)	
Daily labour		54	(46.6%)	3	(13.0%)	*
Women doing craftwork		33	(28.4%)	18	(78.3%)	*
Women doing gardening		9	(7.8%)	-	(-)	
Women working in fields		24	(20.7%)	-	(-)	*
Spending on fuel (Afghanis 000s)		78.8		201.6		
Average number of people:						
Women		2.5		3.0		
Men		2.5		3.4		
Children		4.3		5.4		

TABLE 6

HOUSEHOLDS WITH WOMEN DOING WORK OTHER THAN HOUSEWORK

Type of work	Number of households (N=142)	% of all households
Growing vegetables	10	(7.0%)
Working in fields	24	(16.9%)
Craftwork	53	(37.3%)
Basketware	6	(4.2%)
Making clothes	30	(21.1%)
Knitting	6	(4.2%)
Earning money from craftwork	53	(37.3%)
Spending earnings on:		
Jewellery	14	(26.4%)
Food	28	(52.8%)
Ceremonies	6	(11.3%)
Clothes	53	(100.0%)
Medicine	50	(94.3%)

CONTENTS

* SUMMARY

1. INTRODUCTION

2. OBJECTIVES

3. METHODS

3.1 Overall survey design
3.2 Sample size
3.3 Sampling
3.4 Data collection and questionnaires
3.5 Training of interviewer
3.6 Data analysis and indicators of malnutrition

4. RESULTS

4.1 Successful interviews
4.2 Demographic characteristics of households
4.3 Sources of income
4.4 Women working apart from housework
4.5 Household spending on major items
4.6 Keeping animals and growing food
4.7 Types of food grown and consumed
4.8 Prevalence of malnutrition among children under 5
4.9 Malnutrition and feeding practices
4.10 Malnutrition and household circumstances
4.11 Sickness among children under 5
4.12 Vaccination of children under 5
4.13 Hygiene

5. DISCUSSION

6. CONCLUSIONS

7. RECOMMENDATIONS AND POSSIBLE INTERVENTIONS

8. REFERENCES
9. TABLES
10. QUESTIONNAIRE
11. MAP

TABLE 7

PROPORTION OF INCOME SPENT ON MAJOR ITEMS

Proportion of income	Number of households (and % of all households) spending on: Education	Medicines	Farming	Food	Transport
Less than half	15 (10.6%)	47 (33.0%)	29 (20.4%)	13 (9.2%)	0 (0.0%)
Half or more	1 (0.7%)	41 (28.9%)	9 (6.3%)	112 (78.9%)	3 (2.1%)

TABLE 8

USE OF FUEL BY HOUSEHOLDS AND AMOUNT SPENT PER YEAR

Amount spent per year in Afghanis (000s)	Number of households (N=142)	% of all households
Nothing spent	18	(12.7%)
Something spent	124	(87.3%)
5-40	37	(26.1%)
41-80	38	(26.8%)
81-100	26	(18.3%)
101+	23	(16.2%)

Types of fuel used for cooking:

Cow dung	138	(97.2%)
Wood/bushes	82	(57.7%)
Kerosine	26	(18.3%)

TABLE 9

CHARACTERISTICS OF HOUSEHOLDS SPENDING NOTHING ON FUEL

		Households spending nothing on fuel (N=18)	Households spending on fuel (N=124)	
Buffaloes/cows:	None	1 (5.6%)	22 (17.7%)	
	1-2	10 (55.6%)	81 (65.3%)	
	3+	7 (38.9%)	21 (16.9%)	*
	Mean	3.1	1.9	
Sheep/goats:	None	9 (50.0%)	48 (38.7%)	
	1-2	2 (11.1%)	27 (21.8%)	
	3+	7 (38.9%)	49 (39.5%)	
	Mean	4.2	4.3	
Chickens:	None	3 (16.7%)	28 (22.6%)	
	1-2	4 (22.2%)	49 (39.5%)	
	3+	11 (61.1%)	47 (37.9%)	
	Mean	5.5	3.8	
Proportion of food grown:				
None		7 (38.9%)	42 (33.9%)	
Half or less		8 (44.4%)	57 (46.0%)	
More than half		3 (16.7%)	24 (19.4%)	
Sources of income:				
Selling crops		4 (22.2%)	6 (4.8%)	*
Relative abroad		1 (5.6%)	22 (17.7%)	
Daily labour		7 (38.9%)	51 (41.1%)	
Women doing craftwork		9 (50.0%)	44 (35.4%)	
Women doing gardening		3 (16.7%)	7 (5.6%)	
Women working in fields		4 (22.2%)	20 (16.1%)	
Average number of people:				
Women		3.1	2.5	
Men		2.7	2.6	
Children		4.7	4.4	
Hazara households		17 (94.4%)	99 (79.8%)	
Pakhtoon households		1 (5.6%)	23 (18.5%)	

TABLE 10

NUMBER OF ANIMALS KEPT BY HOUSEHOLDS

Type and number of animals	Number of households (N=142)	% of all households
Cows/Buffalo		
None	23	(16.2%)
1	44	(31.0%)
2	47	(33.1%)
3+	28	(19.7%)
Sheep/Goats		
None	57	(40.1%)
1-2	29	(20.4%)
3-4	26	(18.3%)
5+	30	(21.1%)
Chickens		
None	31	(21.8%)
1	18	(12.7%)
2	35	(24.6%)
3-4	26	(18.3%)
5+	32	(22.5%)
Horses/mules		
None	138	(97.2%)
1	2	(1.4%)
2-3	-	(-)
4-5	2	(1.4%)

TABLE 11

PROPORTION OF FOOD CONSUMED WHICH HOUSEHOLD GROWS

Proportion of food grown	Number of Households	Percentage of total
None	49	34.5%
Less than half	45	31.7%
About half	20	14.1%
More than half	17	12.0%
All	10	7.0%
Not stated	1	0.7%
TOTAL	142	100.0%

TABLE 12

CHARACTERISTICS OF HOUSEHOLDS NOT GROWING ANY OF THEIR OWN FOOD

		Households not growing their own food (N=49)	Households growing some of their own food (N=93)	
Buffaloes/cows:	None	17 (34.7%)	6 (6.5%)	*
	1-2	31 (63.3%)	60 (64.5%)	
	3+	1 (2.0%)	27 (29.0%)	*
	Mean	1.4	2.4	
Sheep/goats:	None	26 (53.1%)	31 (33.3%)	*
	1-2	12 (24.5%)	17 (18.3%)	
	3+	11 (22.4%)	45 (48.4%)	*
	Mean	3.6	4.6	
Chickens:	None	12 (24.5%)	19 (20.4%)	
	1-2	22 (44.9%)	31 (33.3%)	
	3+	15 (30.6%)	43 (46.2%)	
	Mean	3.4	4.3	
Sources of income:				
Selling crops		- (-)	10 (10.8%)	*
Relative abroad		8 (16.3%)	15 (16.1%)	
Daily labour		24 (49.0%)	34 (36.6%)	
Women doing craftwork		20 (40.8%)	33 (35.5%)	
Women doing gardening		2 (4.1%)	8 (8.6%)	
Women working in fields		3 (6.1%)	21 (22.6%)	*
Spending on fuel (Afghanis 000s)		88.0	108.4	
Average number of people:				
Women		2.0	2.8	
Men		2.0	3.0	
Children		3.5	4.9	
Hazara households		39 (79.6%)	77 (82.8%)	
Pakhtoon households		8 (16.3%)	16 (17.2%)	

TABLE 13

PROPORTION OF HOUSEHOLDS GROWING DIFFERENT TYPES OF FOOD

Type of food grown	FOR OWN CONSUMPTION		FOR SELLING	
	Number of households (N=142)	% of total	Number of households (N=142)	% of total
Tomatoes	70	(49.3%)	1	(0.7%)
Egg plant	6	(4.2%)	-	-
Cucumber	35	(24.6%)	-	-
Potatoes	89	(62.7%)	3	(2.1%)
Turnips	11	(7.7%)	-	-
Onions	85	(59.9%)	3	(2.1%)
Radishes	14	(9.9%)	-	-
Carrots	37	(26.1%)	-	-
Leek	34	(23.9%)	2	(1.4%)
Spinach	6	(4.2%)	-	-
Melon	33	(23.2%)	-	-
Fruit trees	50	(35.2%)	2	(1.4%)
Maize	7	(4.9%)	-	-
Wheat	93	(65.5%)	3	(2.1%)
Barley	25	(17.6%)	2	(1.4%)
Beans	10	(7.0%)	-	-
Garlic	2	(1.4%)	-	-

TABLE 14

OWNERSHIP OF ANIMALS AMONG HOUSEHOLDS GROWING THEIR OWN VEGETABLES

Animals owned	Households growing vegetables	Households not growing vegetables	
	Tomatoes (N=70)	No tomatoes (N=72)	
Buffaloes/cows	67 (95.7%)	52 (72.2%)	*
Sheep/goats	45 (64.3%)	43 (59.7%)	
Chickens	57 (81.4%)	54 (75.0%)	
Horses/donkeys	- (-)	4 (5.6%)	
	Cucumber (N=35)	No cucumber (N=107)	
Buffaloes/cows	33 (94.3%)	86 (80.4%)	*
Sheep/goats	25 (71.4%)	60 (56.1%)	*
Chickens	28 (80.0%)	83 (77.6%)	*
Horses/donkeys	- (-)	4 (3.7%)	
	Potatoes (N=89)	No potatoes (N=53)	
Buffaloes/cows	86 (96.6%)	33 (62.3%)	*
Sheep/goats	62 (69.7%)	23 (43.4%)	*
Chickens	72 (80.9%)	39 (73.6%)	*
Horses/donkeys	- (-)	4 (7.5%)	
	Onions (N=85)	No onions (N=57)	
Buffaloes/cows	82 (96.5%)	37 (64.9%)	*
Sheep/goats	56 (65.9%)	29 (50.9%)	*
Chickens	67 (78.8%)	44 (77.2%)	*
Horses/donkeys	1 (1.2%)	3 (5.3%)	
	Carrots (N=37)	No carrots (N=105)	
Buffaloes/cows	36 (97.3%)	83 (79.0%)	
Sheep/goats	25 (67.6%)	60 (57.1%)	*
Chickens	29 (78.4%)	82 (78.1%)	*
Horses/donkeys	- (-)	4 (3.8%)	
	Leeks (N=34)	No leeks (N=108)	
Buffaloes/cows	31 (91.2%)	88 (81.5%)	*
Sheep/goats	23 (67.6%)	62 (57.4%)	*
Chickens	28 (82.4%)	83 (76.9%)	*
Horses/donkeys	1 (2.9%)	3 (2.8%)	

TABLE 15

FOODS BOUGHT REGULARLY FROM THE MARKET

Type of food	Bought in last 2 weeks		Bought regularly (includes last 2 weeks)	
	Number of Households (N=142)	% of total	Number of Households (N=142)	% of total
Rice	37	(26.1%)	118	(83.1%)
Ghee	25	(17.6%)	98	(69.0%)
Fruit	1	(0.7%)	1	(0.7%)
Flour	2	(1.4%)	59	(41.5%)
Tea	44	(31.0%)	133	(93.7%)
Sugar	15	(10.6%)	74	(52.1%)
Candy	2	(1.4%)	46	(32.4%)
Meat	6	(4.2%)	28	(19.7%)
Salt	4	(2.8%)	94	(66.2%)
Oil	9	(6.3%)	32	(22.5%)
Spice	-	-	7	(4.9%)

TABLE 16

TYPES OF FOOD EATEN IN HOUSEHOLDS YESTERDAY OR REGULARLY

	EATEN YESTERDAY		EATEN REGULARLY BUT NOT YESTERDAY	
Type of food	Number of households (N=142)	% of total	Number of households (N=142)	% of total
Squash	1	(0.7%)	2	(1.4%)
Tomatoes	4	(2.8%)	98	(69.0%)
Egg plant	–	–	11	(7.7%)
Cucumber	1	(0.7%)	24	(16.9%)
Potatoes	13	(9.2%)	102	(71.8%)
Turnips	–	–	15	(10.6%)
Onions	96	(67.6%)	46	(32.4%)
Radishes	–	–	23	(16.2%)
Carrots	–	–	30	(21.1%)
Spinach	6	(4.2%)	–	–
Pumpkin	1	(0.7%)	21	(14.8%)
Melon	–	–	18	(12.7%)
Fruit	29	(20.4%)	–	–
Lassi	102	(71.8%)	–	–
Maize	–	–	1	(0.7%)
Wheat/bread	132	(93.0%)	17	(12.0%)
Beans	5	(3.5%)	34	(23.9%)
Rice	32	(22.5%)	108	(76.1%)
Meat soup/ meat	5	(3.5%)	1	(0.7%)

TABLE 17

PREVALENCE OF MALNUTRITION AMONG CHILDREN AGED 6-59 MONTHS
IN SIX STUDY VILLAGES OF QARABAGH DISTRICT, AFGHANISTAN: JULY-AUGUST 1992

WASTED	Level of Malnutrition based on weight-for-height z-scores Proportion malnourished (95% Confidence intervals)		
	BOTH SEXES	BOYS	GIRLS
6-59 MONTHS	(N=509)	(N=248)	(N=261)
Acute *	6.1% (4.2 - 8.6)	7.7% (4.8 - 11.9)	4.6% (2.5 - 8.1)
Severe	0.6% (0.1 - 1.8)	0.8% (0.1 - 3.1)	0.4% (0.0 - 2.4)
6-23 MONTHS	(N=193)	(N=103)	(N=90)
Acute	11.4% (7.4 - 16.9)	12.6% (7.1 - 20.9)	10.0% (4.9 - 18.5)
Severe	1.0% (0.1 - 4.0)	1.0% (0.0 - 5.9)	1.1% (0.0 - 6.7)
24-59 MONTHS	(N=316)	(N=145)	(N=171)
Acute	2.8% (1.4 - 5.5)	4.1% (1.6 - 9.1)	1.8% (0.4 - 5.4)
Severe	0.3% (0.0 - 2.0)	0.7% (0.0 - 4.3)	0.0% (0.0 - 0.0)

* Global acute malnutrition: z-score < -2
Severe malnutrition: z-score < -3

STUNTED *	Level of Malnutrition based on height-for-age z-score Proportion malnourished (95% Confidence intervals)		
6-59 MONTHS	64.2% (59.8 - 68.4)	63.6% (57.2 - 69.7)	64.8% (58.6 - 70.7)
6-23 MONTHS	52.9% (45.6 - 60.2)	52.5% (42.4 - 62.5)	53.4% (42.6 - 64.1)
24-59 MONTHS	71.2% (65.8 - 76.2)	71.6% (63.4 - 78.8)	70.9% (63.3 - 77.6)

* Stunted: Z-score < -2

ACKNOWLEDGEMENT

The survey was suggested by Aart Martens of SC-US, Peshawar, whose proposal formed the basis of the survey design. He also made the recommendations for interventions based on the findings of the survey and made many useful comments on a draft of this report. The SC-US sponsored nurse from Qarabagh, Mrs Maryam Eid Mohammed, was trained to carry out the interviewing. Without her the survey would not have been possible, and her determined efforts are very much appreciated. Her husband Mr Mohammed Hasan and Mrs Lajaward assisted with weighing and measuring children. Training for Mrs Mohammed was organised by Marja Exterkate, survey manager with MSF-Holland in Peshawar who also contributed to the development of the questionnaire. Mrs Rabia Maaroof and Mr Parvaiz Estmatee of SC-US, Peshawar provided translation services. Funding for the survey was provided by SC-US, Westport, with the support of Mrs Nilgun Ogun and Mrs Angela van Rynbach.

Copies of the report may be obtained from:

Save the Children (US)
PO Box 1050,
2 School Road,
UT, Peshawar,
Pakistan.

TABLE 18

FIRST SUPPLEMENTARY FOOD GIVEN TO YOUNGEST CHILD AND NUTRITIONAL STATUS

Number of children (% of all children)

TYPE OF FIRST FOOD GIVEN	Weigh-for-height LOW	NORMAL	TOTAL
Baby food	7 (9.2%)	2 (7.7%)	9 (8.8%)
Biscuits	1 (1.3%)	2 (7.7%)	3 (2.9%)
Bread	8 (10.5%)	-	8 (7.8%)
Butter	5 (6.6%)	2 (7.7%)	7 (6.9%)
Cream	4 (5.3%)	-	4 (3.9%)
Fruit juice	-	-	-
Ghee	2 (2.6%)	1 (3.8%)	3 (2.9%)
Milk	12 (15.8%)	7 (26.9%)	19 (18.6%)
Oil	2 (2.6%)	1 (3.8%)	3 (2.9%)
Powder milk	6 (7.9%)	1 (3.8%)	7 (6.9%)
Rice	5 (6.6%)	1 (3.8%)	6 (5.9%)
Sujee	12 (15.8%)	5 (19.2%)	17 (16.7%)
Sweets	-	-	-
Tea	3 (3.9%)	-	3 (2.9%)
Yoghurt	9 (11.8%)	4 (15.4%)	13 (12.7%)
Everything	-	-	-
TOTAL *	76 (100%)	26 (100%)	102 (100%)

* This is the total number of times the food was mentioned by mothers.

TABLE 13

MOTHERS GIVING MORE OR LESS FOOD AND DRINK
WHEN CHILD HAS DIARRHOEA : BY NUTRITIONAL STATUS

	Number of children (% of total)	
	Given less drink	Given same/ more drink
Acutely Malnourished	3 (27.3%)	8 (72.7%)
Other children	25 (19.8%)	101 (80.2%)
TOTAL	28 (20.4%)	109 (79.6%)

	Given less food	Given same/ more food
Acutely malnourished	9 (81.8%)	2 (18.2%)
Other children	83 (65.9%)	43 (34.1%)
TOTAL	92 (67.2%)	45 (32.8%)

TABLE 20

PREVALENCE OF MALNUTRITION AMONG CHILDREN AGED 6-59 MONTHS BY VILLAGE

Village	Number of children 6-59 months by nutritional status *			
	Normal W/H	Mildly Malnourished	Acutely Malnourished	TOTAL
Jamal	13 (26.5%)	33 (67.3%)	3 (6.1%)	49
Jangalak	42 (30.9%)	88 (64.7%)	6 (4.4%)	136
Kohna Deh	15 (25.0%)	39 (65.0%)	6 (10.8%)	60
Mirak	25 (30.5%)	48 (58.5%)	9 (11.0%)	82
Nialkhan	5 (17.9%)	23 (82.1%)	- -	28
Qarca	55 (28.6%)	128 (66.7%)	9 (4.6%)	192
TOTAL	155 (28.3%)	359 (65.6%)	33 (6.1%)	547
Tribe +				
Pakhtoon	11 (20.8%)	39 (73.6%)	3 (5.7%)	53
Hazara	60 (29.4%)	133 (65.2%)	11 (5.4%)	204

+ Data available only for households where main interview was conducted.

* Malnutrition as measured by weigh-for-height z-score:
Normal (z-score >= 0); Mild (z-score < 0, > -2);
Acute (z-score =< -2)

TABLE 21

NUTRITIONAL STATUS OF CHILDREN AGED 6-59 MONTHS
IN HOUSEHOLDS WITH AND WITHOUT ANIMALS

	Number of children (% of all children)			
Number of animals in household	Normal W/H	Mildly * Malnourished	Acutely Malnourished	TOTAL
High number:				
1+ cow/buffalo or 2+ sheep/goats or 4+ chickens	37 (31.9%)	73 (62.9%)	6 (5.2%)	116 (100%)
Low number:				
0 cow/buffalo <2 sheep/goat <4 chickens	32 (25.0%)	88 (68.8%)	8 (6.3%)	128 (100%)
No animals	3 (20.0%)	11 (73.3%)	1 (6.7%)	15 (100%)
TOTAL **	72 (27.8%)	172 (66.4%)	15 (5.8%)	259 (100%)

* Malnutrition as measured by weigh-for-height z-score:
Normal (z-score >= 0); Mild (z-score < 0, > -2);
Acute (z-score =< -2)

**Includes only children from household where female head was interviewed.

TABLE 22

NUTRITIONAL STATUS OF CHILDREN 6-59 MONTHS IN HOUSEHOLDS GROWING SOME OR ALL OF THEIR OWN FOOD

Proportion of food grown themselves	Number of children (% of all children) Normal W/H	Mildly * Malnourished	Acutely Malnourished	TOTAL
Most or all	9 (36.0%)	16 (64.0%)	0 (0.0%)	25 (100%)
Some	38 (34.5%)	66 (60.0%)	6 (5.5%)	110 (100%)
None	25 (20.2%)	90 (72.6%)	9 (7.3%)	124 (100%)
TOTAL **	72 (27.8%)	172 (66.4%)	15 (5.8%)	259 (100%)

* Malnutrition as measured by weigh-for-height z-score:
Normal (z-score >= 0); Mild (z-score < 0, > -2);
Acute (z-score =< -2)

**Includes only children from household where female head was interviewed.

TABLE 23

INCIDENCE OF SICKNESS AMONG YOUNGEST CHILDREN IN HOUSEHOLDS AND ACTION TAKEN

ACTION	SKIN COMPLAINT	DIARRHOEA	VOMITING	FEVER & CHILL	FEVER	COUGH	DIFFICULTY BREATHING	SORE THROAT	EAR DISCHARGE	EYE COMPLAINT
Nothing	8 (13.1%)	15 (13.6%)	8 (10.4%)	6 (17.6%)	15 (12.3%)	17 (16.3%)	5 (11.1%)	1 (4.8%)	4 (13.8%)	- -
Medicine	50 (82.0%)	87 (79.1%)	66 (85.7%)	27 (79.4%)	100 (82.0%)	80 (76.9%)	38 (84.4%)	19 (90.5%)	25 (86.2%)	5 (83.3%)
Doctor	43 (70.5%)	78 (70.9%)	61 (79.2%)	26 (76.5%)	89 (73.0%)	71 (68.3%)	32 (71.1%)	18 (85.7%)	23 (79.3%)	4 (66.7%)
Health worker	14 (23.0%)	23 (20.9%)	17 (22.1%)	7 (20.6%)	28 (23.0%)	22 (21.2%)	11 (24.4%)	7 (33.3%)	6 (20.7%)	4 (66.7%)
Hakim	1 (1.6%)	9 (8.2%)	6 (7.8%)	2 (5.9%)	8 (6.6%)	8 (7.7%)	1	1 (4.8%)	- -	- -
Homemade Preparation	11 (18.0%)	17 (15.5%)	17 (22.1%)	1 (2.9%)	24 (19.7%)	19 (18.3%)	14 (31.1%)	9 (42.9%)	10 (34.5%)	3 (50.0%)
Mullah	36 (59.0%)	57 (51.8%)	45 (58.4%)	20 (58.8%)	65 (53.3%)	56 (53.8%)	27 (60.0%)	10 (47.6%)	17 (58.6%)	5 (83.3%)
NUMBER SICK	61	110	77	34	122	104	45	21	29	6
PREVALENCE RATE	(42.7%)	(76.9%)	(53.8%)	(23.8%)	(85.3%)	(72.7%)	(31.5%)	(14.7%)	(20.3%)	(4.2%)

TABLE 24

VACCINATIONS REPORTED FOR CHILDREN AGED 6-59 MONTHS

	Have card (N=325)	No card (N=212)	All children (N=547)
BCG scar	72.0%	30.0%	55.9%
BCG (tuberculosis)	97.5%	35.7%	74.2%
DPT (diphtheria pertussis tetanus)	77.2%	9.2%	59.6%
OPV (polio)	26.6%	30.9%	19.3%
Measles	68.6%	26.5%	52.4%

TABLE 25

SOURCE OF HOUSEHOLD'S DRINKING WATER

	Number of households (N=142)	% of all households *
Communal well	16	(11.3%)
Household well	53	(37.3%)
Spring	12	(8.5%)
River/Lake	19	(13.4%)
Canal	105	(73.9%)

* Total is more than 100% - some households have more than one source of water.

INCIDENCE OF DIARRHOEA AMONG YOUNGEST CHILDREN IN HOUSEHOLDS WITH DIFFERENT SOURCES OF DRINKING WATER

	Diarrhoea in in last 2 weeks	No diarrhoea in last 2 weeks
Communal well	11 (68.8%)	5 (31.3%)
Household well	36 (67.9%)	17 (32.1%)
Spring	7 (58.3%)	5 (41.7%)
River/Lake	12 (63.2%)	7 (36.8%)
Canal	84 (80.0%)	21 (20.0%)
All sources	107 (75.4%)	35 (24.6%)

TABLE 26

INCIDENCE OF DIARRHOEA AMONG YOUNGEST CHILDREN IN HOUSEHOLDS WITH DIFFERENT HYGIENE PRACTICES

	Diarrhoea in last 2 weeks (N=107)	No diarrhoea in last 2 weeks (N=35)	TOTAL (N=142)
Latrine used	77 (74.8%)	26 (25.2%)	103 (100%) (72.5%)
Latrine not used	30 (76.9%)	9 (23.1%)	39 (100%) (27.5%)
Mother washes hands after defecation	58 (72.5%)	22 (27.5%)	80 (100%) (56.3%)
Mother does not wash hands	49 (79.0%)	13 (21.0%)	62 (100%) (43.7%)
Mother uses soap	35 (71.4%)	14 (28.6%)	49 (100%) (34.5%)
Mother does not use soap	72 (77.4%)	21 (22.6%)	93 (100%) (65.5%)
Soap in household	70 (73.7%)	25 (26.3%)	95 (100%) (66.9%)
No soap	37 (78.7%)	10 (21.3%)	47 (100%) (33.1%)
Water from Canal	84 (80.0%) *	21 (20.0%)	105 (100%) (73.9%)
Other water source	23 (62.2%)	14 (37.8%)	37 (100%) (26.1%)

TABLE 27

PLACE OF DEFECATION FOR MEN, WOMEN AND CHILDREN

	Number of households (N=142)		
Place of defecation	Children	Women	Men
In compound	102 (71.8%)	4 (2.8%)	5 (3.5%)
Outside compound	38 (26.8%)	35 (24.6%)	75 (52.4%)
Open latrine	1 (0.7%)	45 (31.7%)	34 (23.8%)
Covered latrine	1 (0.7%)	58 (40.8%)	29 (20.4%)

TABLE 28

METHOD OF DISPOSAL OF RUBBISH IN HOUSEHOLDS

	Number of households	% of all households *
Heap in compound	13	(9.2%)
Heap outside compound	124	(87.3%)
Pit in compound	7	(4.9%)
Pit outside compound	4	(2.8%)
Burn rubbish	5	(3.5%)

(* Some households use more than one method of disposal)

ABBREVIATIONS

BCG	Bacillus Calmette-Guerin (Tuberculosis Vaccine)
DPT	Diphtheria, Pertussis, Tetanus (Vaccine)
MCH	Mother and Child Health
MSF-Holland	Medicins sans Frontiere - Holland
MSH	Management Services for Health
OPV	Oral Poliovirus Vaccine
NCHS	National Centre for Health Statistics (US)
NIPS	National Institute for Population Studies (Islamabad)
SCA	Swedish Committee for Afghanistan
SC-US	Save the Children (US)
WHO	World Health Organisation

SURVEY OF NUTRITION, HEALTH AND BASIC NEEDS - QARABAGH, AFGHANISTAN, 1992

Date ________________ Surveyor's name ______________

Village ____________________ Name of female head of household

Compound number__________ ____________________________

Household number __________ Tribe _________________

INTRODUCTION: I am (working with)................ trying to help people in the local villages with health and nutrition problems. We are asking mothers who have children under 5 years of age a few questions about things which might affect their health, so we can give better help to everybody in the future.

[This questionnaire consists of 3 parts: (A) a household form, (B) a mother and child form, and (C) a vaccination and nutrition measurement form. In each household the interviewer will identify the female head of the household who can answer the questions on form A (by consulting with her husband if necessary). Form B is filled in by interviewing the mother in that household who has the youngest child. One copy of form C is filled in for each mother in the household who has children under 5. A household is defined as a group of people living in the same compound and eating regularly from the same pot.]

A. HOUSEHOLD FORM (ASK TO FEMALE HEAD OF HOUSEHOLD).

1a. How long have you been continuously living in this village?
_____years_____months

b. Have you lived somewhere else in the last 5 years (for at least 1 year)?
O Yes
O No

IF NO, GO TO QUESTION 2, IF YES, CONTINUE WITH QUESTION 1c

c. How long ago did you return to this village? _____years_____months

d. Where did you go to? O Refugee camp in Iran
O Refugee camp in Pakistan
O Other village
O Other ____________________

e. Why did you go away? O Fighting
O Climate/Seasons
O Work
O Other ____________________

HYGIENE

2a. Where do you get your water for drinking?
- O Communal well
- O Household well
- O Spring
- O River/Lake
- O Tap
- O Canal
- O Other ____________________

b. How do you store your water for drinking?
- O Covered containers
- O Other containers

3a. When do you wash your hands?
- O Before eating
- O Before cooking
- O Before praying
- O After defecating

b. Do you usually use soap when washing your hands?
- O Yes
- O No

c. Do you have soap in the house now?
- O Yes
- O No

4a. How does your family dispose of household rubbish?
- O Rubbish heap in the compound
- O Rubbish heap outside the compound
- O Pit in the compound
- O Pit outside the compound
- O Other ____________

b. Do you burn your rubbish?
- O Yes
- O No

5. Where do people in your household defecate?

	(a) men	(b) women	(c) children (under age 5)
In a nearby field	O	O	O
Just outside the compound	O	O	O
In the compound	O	O	O
Open latrine	O	O	O
Covered latrine	O	O	O
Other ____________	O	O	O

FOOD

I would like to ask a few questions about the food your family has.

6. How many animals does your family have?
   - O No animals
   - O Buffalo's/Cows ____________
   - O Sheep/goats ____________
   - O Horses/mules ____________
   - O Chickens ____________
   - O Other ____________

7a. What proportion of the food your family eats do you grow yourselves?
(READ ANSWERS)
   - O less than half
   - O about half
   - O more than half
   - O most
   - O all

b. What crops does your family grow for its own use?
   - O Tomatoes
   - O Onions
   - O Potatoes
   - O Carrots
   - O Spinach
   - O Garlic
   - O Eggplant
   - O Wheat
   - O Maize
   - O Fruit trees ________________
   - O Melon
   - O Cucumber
   - O Turnip
   - O Radish
   - O Leek
   - O Pumpkin
   - O Squash
   - O Barley
   - O Beans/Peas
   - O Other ______________________

8a. What proportion of the food you grow do you sell?
(READ ANSWERS)
   - O less than half
   - O about half
   - O more than half
   - O most
   - O all

b. What crops does your family grow to sell?
   - O Tomatoes
   - O Onions
   - O Potatoes
   - O Carrots
   - O Spinach
   - O Garlic
   - O Eggplant
   - O Wheat
   - O Maize
   - O Fruit trees ________________
   - O Melon
   - O Cucumber
   - O Turnip
   - O Radish
   - O Leek
   - O Pumpkin
   - O Squash
   - O Barley
   - O Beans/Peas
   - O Other ______________________

9. Would your family borrow money if it meant you could grow more food to sell?
   - O Yes
   - O No

10a. In the last 2 weeks, what foods did you or someone else in the family buy from the market?

- O Tomatoes
- O Onions
- O Potatoes
- O Carrots
- O Spinach
- O Garlic
- O Eggplant
- O Wheat
- O Maize
- O Fruit ____________________
- O Melon
- O Cucumber
- O Turnip
- O Radish
- O Leek
- O Pumpkin
- O Squash
- O Barley
- O Beans/Peas
- O Other ________________________

b. What other foods do you buy regularly?

- O Tomatoes
- O Onions
- O Potatoes
- O Carrots
- O Spinach
- O Garlic
- O Eggplant
- O Wheat
- O Maize
- O Fruit ____________________
- O Melon
- O Cucumber
- O Turnip
- O Radish
- O Leek
- O Pumpkin
- O Squash
- O Barley
- O Beans/Peas
- O Other ________________________

11. What foods did your family eat yesterday?

- O Meat
- O Nan
- O Tomatoes
- O Onions
- O Potatoes
- O Carrots
- O Spinach
- O Garlic
- O Eggplant
- O Wheat
- O Maize
- O Fruit ____________________
- O Rice
- O Lassi
- O Melon
- O Cucumber
- O Turnip
- O Radish
- O Leek
- O Pumpkin
- O Squash
- O Barley
- O Beans/Peas
- O Other ________________________

12. What other foods does your family regularly eat?

- O Tomatoes
- O Onions
- O Potatoes
- O Carrots
- O Spinach
- O Garlic
- O Eggplant
- O Wheat
- O Maize
- O Fruit ____________
- O Melon
- O Cucumber
- O Turnip
- O Radish
- O Leek
- O Pumpkin
- O Squash
- O Barley
- O Beans/Peas
- O Other ________________

13. What sources of income does your family have?

- O Selling crops
- O Crafts
- O Relative working elsewhere who sends money
- O Relative in the village who works
- O Other ____________

14. What proportion of the family's income is spent on:
(READ ANSWERS)

	food	farming	transport	medicines	education
Nothing	O	O	O	O	O
Less than half	O	O	O	O	O
Half	O	O	O	O	O
More than half	O	O	O	O	O
Most of the income	O	O	O	O	O

15. Do any of the women in the household do the gardening of the vegetables your family eats?

- O Yes
- O No

16. Do any of the women in the household work in the fields on other crops?

- O Yes
- O No

17. Do any of the women in the household do any craftwork?

- O No (IF NO: GO TO QUESTION 19)
- O Basketware
- O Make clothes
- O Knitting
- O Other ________________

18a. Do you/they earn any money from this craft work?

- O Yes
- O No

18b. If Yes, what do you/they use this money for?

- O Food
- O Clothes
- O Medicines
- O Ornaments/jewellery
- O Ceremonies
- O Other, ____________

19. Do you usually do the cooking for your family? O Yes
O No

20. What fuel do you use for cooking? O Cow dung
O Wood
O Kerosine
O Other ________________________

21. Does your family spend money on fuel? O Yes
O No

If Yes, How much in a year? ________________

HOUSEHOLD COMPOSITION

22. How many women (aged 15 and over) are living in your household?

____

23. How many of these women have children under 5?

____________ (FOR ALL THESE WOMEN FORM C SHOULD BE FILLED IN)

24. How many men (aged 15 and over) are living in your household?

____

25. How many children altogether (under 15) are living in your household?

____

26. How many children altogether (under 5) are living in your household?

____

B. MOTHER AND CHILD FORM (ASK MOTHER WHO HAS THE YOUNGEST CHILD IN THE HOUSEHOLD).

Village ______________

Date ____________ Compound number ______________

Mother's name ______________________ Household number ______________

I would like to ask you some questions about your youngest child.

1. Is your youngest child a boy or a girl? O Boy
   O Girl

2. What is the name of your youngest child? ______________

3. Are you breastfeeding the child now? O Yes
   O No

   IF NO, GO TO QUESTION 6, IF YES, CONTINUE WITH QUESTION 4

4. Do you give the child supplementary food as well as breastmilk?
   O Yes
   O No

   IF NO, GO TO QUESTION 7, IF YES, CONTINUE WITH QUESTION 5a

5a. At what age did you start giving the child food other than breastmilk?
   _______ months.

b. What was the first supplementary food you gave the child?

   ____

c. How was this given? O Cup and spoon
   O Cup
   O Bottle
   O Hand
   O Other, ______________

d. What other foods have you given the child (excluding breastmilk) and how was the food given?

Food	How food was given:
___________________	____________
___________________	____________
___________________	____________
___________________	____________
___________________	____________
___________________	____________

By:
Cup and Spoon
Cup
Bottle
Hand
Other

6. If you are not breastfeeding the child, at what age did you stop?
   _________ months __________ years

7. Has ....(the youngest child) been sick in the last 2 weeks?
   O Yes
   O No

   IF NO, GO TO QUESTION 9, IF YES, CONTINUE WITH QUESTION 8a

8a. If Yes, what was the sickness?
   O Fever
   O Fever and chills
   O Diarrhoea
   O Vomiting
   O Convulsions
   O Cough
   O Difficulty in breathing
   O Sore throat
   O Ear discharge
   O Eye infection
   O Skin rash
   O Headache
   O Other __________________________

8b. How did you treat (name) for this?
   O Did nothing
   O Went to a doctor
   O Went to health worker
   O Went to hakim/hushyar
   O Went to mullah
   O Bought medicines
   O Gave herbs
   O Gave ORS/Nimkol(packet)
   O Homemade SSS
   O Other ____________________

8c. If your young child has diarrhoea do you change the amount of food and drink given?
   (a) O more food
   O same food
   O less food
   O no food
   (b) O more drink
   O same drink
   O less drink
   O no drink

9. What do you do when someone else in your family is sick?
   O Nothing
   O Go to doctor
   O Go to health worker
   O Go to hakim/hushyar
   O Go to mullah
   O Buy medicines
   O Give herbs
   O Other ____________________

10. Do you ever pay for medical treatment? O Yes
   O No

   If Yes, for what? O Doctor fees
   O Tests
   O Medicines
   O Hospital
   O Other __________________

11. Would you be able to pay a small amount for medical treatment if it was available near the village? O Yes
   O No

12. Would you be able to go to a clinic nearby to learn about health and nutrition? O Yes
O No

13. What things concerning health would you like to know more about?
O Nutrition
O Feeding
O Immunization
O Hygiene
O Pregnancy
O Treatment of sick people
O Other, ____________________

14. What health facilities would you like to have near this village?
O Clinic
O Hospital
O Pharmacy
O Other, ______________________

C. VACCINATION AND NUTRITIONAL MEASUREMENT.

(Fill in one form for each mother in the household who has children under 5)

Village ____________________

Date ____________ Compound number ____________

Mother's name ______________________ Household number ____________

1a. Have you received any tetanus (TT) vaccinations? O Yes
O No

If Yes, how many? ____________

b. Do you have an EPI card? O Yes (CHECK CARD)
O No

2. For each of your children under 5, I would like to know when they were born and if they have been vaccinated? Starting with your youngest child. (FILL IN NAME, SEX, BIRTH DATE, CARD, VACCINATIONS FOR EACH CHILD UNDER 5)

3. We would like to weigh and measure each of your children aged between 6 months and 5 years (these children are approximately 65 -110 cm). (FILL IN WEIGHT AND HEIGHT FOR EACH CHILD 6-59 MONTHS)

Name	Sex	Birth Date	EPI Card	BCG Scar	BCG	OPV	DPT	Measles	Weight in Kgs.	Height in cms.

CODING: Date of Birth: only month and year of birth (mm¦yy)
EPI card Yes or No
BCG scar: Yes or No
BCG: Yes or No
OPV: 1,2,3 or No
DPT: 1,2,3 or No
Measles: Yes or No
Sex: Male or Female

*   SUMMARY

1. SC-US is giving priority to activities which address the basic needs of women and children in rural Afghanistan. The aim is to improve living standards through an integrated programme of activities such as income generation, small-scale agricultural projects, credit, health education and MCH services.

2. To provide information as a basis for the development of new projects in Qarabagh District a survey of nutritional status, sickness, and basic household needs was proposed. MSF-Holland carry out health surveys among Afghan refugees in Pakistan, and were asked by SC-US to design a survey and to train an Afghan nurse/midwife to conduct the interviews using structured questionnaires.

3. Interviews in 142 households revealed a lack of basic amenities. For example, three-quarters of households get their drinking water from canals, about half the men did not use a latrine, and over one-third of households had no soap.

4. The sources of income and resources available to households are very limited. Daily work in the fields and trading animals are the main sources of income. About one-third of households do not grow any food for themselves and only a few reported growing food for sale.

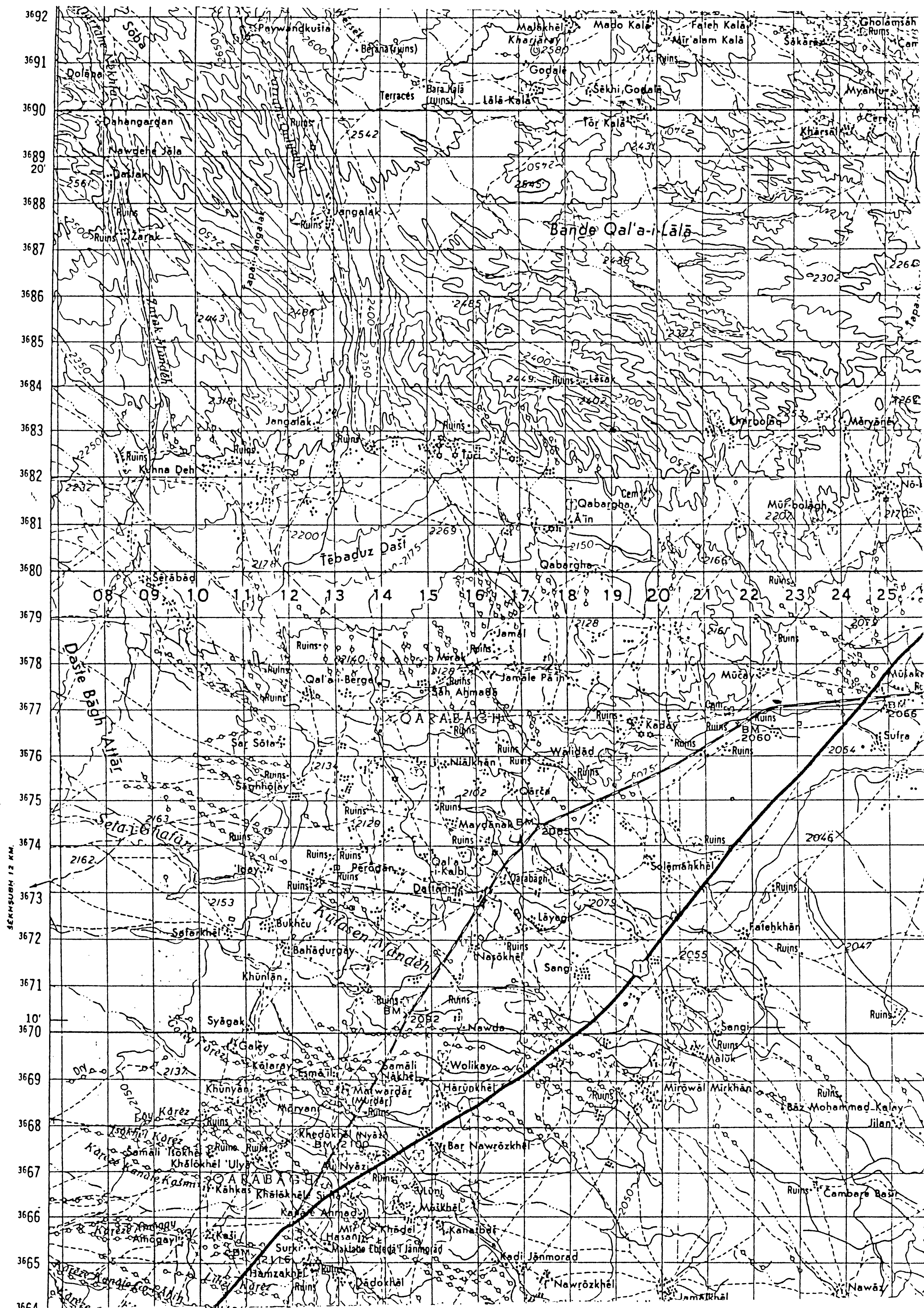
5. Households not growing their own food are generally worse off. They have fewer sheep or goats and fewer buffaloes or cows. The dung from cattle is a source of fuel. Nearly all households who did not spend money on fuel had at least one buffalo or cow. For other households fuel is a major item of expenditure. A majority of households also spend money on medicines. However, the most important item of expenditure is food on which most households spend over half their income.

6. Women reported spending money from craftwork on clothes, medicines, and food, and craftwork is a source of income in just over a third of households. In some Hazara households craftwork is less likely because women are working in the fields or cultivating vegetables.

7. Vegetables and fruits are grown by only a small proportion of households. Tomatoes, potatoes and rice are bought regularly, but onions, lassi, and bread formed the basis of the previous day's meal for many households.

8. The prevalence of acute malnutrition among children aged 6-59 months was 6.1%, which was about the same as a recent estimate for Balochistan. The low rate of 2.8% at ages 24-59 months suggests there has been no food crisis recently. However about two-thirds of children under 5 are stunted. This reflects the cumulative effect of frequent sickness as well as poor nutrition.

9. At ages 6-23 months 11.4% of children were acutely malnourished which probably reflects poor weaning practices and the effects of diarrhoeal disease in particular. About one in five mothers had stopped breastfeeding too early, before their youngest child was 6 months old. About one-third of mothers had begun supplementary feeding before the recommended age of 4 months and these very young infants are particularly prone to diarrhoeal disease.


Paywandkušia
Malakhēl
Mado Kalā
Faieh Kalā
Mīr'alam Kalā
Gholamšah
Dolāna
Godalē
Sēkhi Godalā
Myanțu
Terraces
Lālā Kalā
Dahangardan
Tōr Kalā
Khārsāl
Nawdehe Jāla
Dašiak
Zarak
Jangalak
Bande Qal'a-i-Lālā
Lēsak
Kharbolaq
Māryānē
Kunna Deh
Qabargha
Mūr bolāgh
Tēbaduz Dašt
Sērābād
08
09
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23
24
25
Jamāl
Qal'a-i-Bergē
Jamāle Pā'in
Šāh Ahmadā
QARABĀGH
Mūčay
Kaday
Sar Sōta
Nialkhān
Walidād
Sufra
Saghhōlay
Qārča
Maydanak
Qal'a i-Kalbl
Pērodān
Qarabāgh
Solēmānkhēl
Dašte Bāgh Attār
Seta-i-Ghafāri
Idoy
Daftani
Kulasen Mandēh
Bukhču
Lāyeq
Safarkhēl
Fatehkhān
Bahādurgay
Nasōkhēl
Sang
Khūnlān
Syāgak
Nawda
Sangi
Galēy
Kālaray
Samāli
Nākhēl
Wolikay
Esmā'īl
Mālūk
Khunyān
Hārūnkhēl
Mirōwāl Mirkhān
Māryan
Matwardar
Bāz Mohammad Kalay
Jīlān
Kārēz
Khedōkhēl (Nyāzi)
Bar Nawrōzkhēl
Samāli Tsokhēl
Khālōkhēl 'Ulyā
Kāhkas
Khālōkhēl
Lūni
Cambare Bašī
Karāe Ahmad
Kanatbar
Amōgay
Kaji
Surki
Hasan
Khōdel
Kadi Jānmorad
Hamzakhēl
Dādokhēl
Nawrōzkhēl
Nawāz
Jamālkhēl
Ruins
SEKHSUBH 12 KM.
3692
3691
3690
3689
20'
3688
3687
3686
3685
3684
3683
3682
3681
3680
3679
3678
3677
3676
3675
3674
3673
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3671
10'
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3668
3667
3666
3665
3664

10. The living arrangements of households, with large numbers of children in a compound, are highly conducive to the transmission of infectious diseases, particularly respiratory and gastro-intestinal infections for which incidence was very high. Care given to children with diarrhoea was also inadequate, with one in five mothers actually giving less drink and two-thirds giving less food.

11. A willingness to accept health interventions is indicated by the fact that nearly two-thirds of children under 5 had EPI cards, and vaccination with BCG and DPT, and against measles, was reported for about 70% of them. Most households would consult a doctor and buy medicines when a child was sick, and there was considerable interest in having more health facilities near the village.

12. There appears to be considerable scope for the extension of projects aimed at improving material standards of living. Activities such as craftwork, poultry rearing, and growing and preserving vegetables can be encouraged. Credit schemes can be introduced for purchasing cattle and growing fruit trees. Women are likely to be involved in much of the work and earn extra income for basic necessities. The improvement of stoves, growing trees for fuel, and the provision of potable water would also be important interventions.

1. INTRODUCTION

1.1 Save the Children (SC-US) have been carrying out agricultural and income generating activities in Qarabagh District, Afghanistan since April 1988. Improved seeds, fertilizers, and fruit trees have been introduced, irrigation canals repaired and agricultural courses set up. Income generation focuses on craftwork. A local Afghan nurse is sponsored who attends deliveries in the home. Work has just started to re-establish a Mother and Child (MCH) clinic to serve the area in which she works.

1.2 SC-US is currently placing great emphasis on activities which address the basic needs of rural women and children in Afghanistan. The aim is to improve the overall standard of life for rural households by such diverse activities as gardening of vegetables, credit schemes, training in health and nutrition, and MCH services. Two major objectives of the programme are an increase in sources of household income and an improvement in the nutritional status of children under 5, both of which are measurable outcomes.

1.3 Malnutrition and sickness are poverty-related. The growth of children and their future physical and mental development and hence productivity is adversely affected by many factors which are linked with poverty (Douglas and Blomfield, 1958; Goldstein, 1971). The health of the mother, adequate nutrition during pregnancy, breastfeeding practices, hygiene and child care, and many other factors affect the growth of a child as well as the intake and type of food it receives. Inadequate nutrition is a contributing factor in high rates of child mortality from infectious diseases in the poorer countries of the South. On the other hand, infectious diseases themselves cause malnutrition, by the restriction of food intake and by impairing the ability of the body to convert food into energy and growth (Newberne and Williams, 1970). In view of the complex inter-relationship between poverty, nutrition, disease, and health, SC-US favours an integrated approach to improving the standard of life in rural households. This is particularly appropriate where major changes in the economic conditions of life in a country are unlikely in the near future, as in Afghanistan.

1.4 SC-US in Peshawar proposed to carry out a survey of child nutritional status and basic household needs to provide baseline data for future activities in Qarabagh District. The Agricultural Survey of Afghanistan has provided data at the regional level (SCA, 1988), and other demographic and household surveys have been carried out recently in Wardak and Takhar Provinces (MSH, 1991,1992). However, these studies have provided no information on the level of malnutrition and the household circumstances associated with it. The results from a survey designed to do this at District level would provide a basis for decisions about which interventions are most appropriate locally. It was intended that such a survey would provide information about the increase in crop growing that would be required to improve food availability, about which vegetables to promote, and about other ways to improve health and nutritional status, such as MCH services, education on nutrition, hygiene, and health care.

1.5 MSF-Holland, Pehawar, who carry out health surveys among the Afghan refugee population were approached by SC-US in April 1992 concerning the possibility of collaborating on a nutrition and basic needs survey in Qarabagh.

It was suggested that MSF expatriate staff and local health survey interviewers might be able to train the SC-US nurse from Qarabagh to carry out such a survey. It was agreed that the MSF technical adviser on health surveys and the survey manager would act as consultants to design a survey, and train the nurse to select a sample of households and to carry out the interviews. The questionnaires would then be sent from Afghanistan for data analysis in Peshawar, with a view to producing a report before the end of September 1992.

1.6 Due to the constraints of time, and the limited capacity of someone with only brief training to conduct a very complex or long interview, the terms of reference for the survey were somewhat restricted. Nevertheless, it was agreed that it should be possible to collect useful data on a wide range of issues related to nutrition, health and basic needs.

2. OBJECTIVES

2.1 The major objective of the survey was to provide information on the sickness and nutritional status of children under 5, feeding practices, diet, food availability and consumption, sources of income, and basic household needs such as fuel, water and latrines.

2.2 Data would be collected on household circumstances which could be used for targetting income generating activities to those most deprived. Data collected on nutritional status and diet could be used for planning future agricultural activities in the District.

2.3 The survey was designed to provide information required for developing MCH facilities, education in health and nutrition, and for future evaluation of such interventions.

3. METHODS

3.1 Overall Survey Design

Data were collected using structured questionnaires developed by MSF-Holland, Peshawar. Interviews were carried out in a sample of households in the study area consisting of nine villages in Qarabagh District where SC-US craft projects were operating. In the selection of households standard cluster sampling techniques were used as in previous nutrition surveys among Afghan refugees in Pakistan (Boss et al, 1984, 1985, 1986, 1987). Little was known about the homogeneity of the study population to guide decisions about cluster size. It was assumed that variation in the prevalence of malnutrition between villages was a more important consideration than variation between sectors of a village. The population size and ethnic composition of villages were taken into account to ensure representativeness of the sample. One fairly small cluster of 12 households was selected from the three smallest villages, with a greater number of adjacent clusters selected in the larger villages. Interviews were conducted with the female head of household and with the mother of the youngest child in the selected household until the required target was reached. In households where these interviews were carried out, all children under 5 were weighed and

measured. In addition, the interviewer was instructed to find further children to weigh and measure by continuing to select households in the prescribed manner.

3.2 Sample size

3.2.1 The sample size required to keep the error due to sampling below 2% (95% level of confidence) on an expected level of acute malnutrition of 10%, was 850 children aged 6-59 months. For the data collected in the interviews a sampling error of 5% (on proportions) was considered appropriate. This required a total of 150 interviews with the female head of household and 150 with the mother of the youngest child in the household.

3.3 Sampling

3.3.1 It was decided not to include Qaluch village in the sampling frame because of the travelling that would be involved for the interviewer. The other eight villages were within walking distance of Qarca where she lives. The sampling frame was therefore all households in these 8 villages. A household was defined as a group of people living in the same compound and eating regularly from the same cooking pot.

3.3.2 The total estimated population of these 8 villages was 6295. It was assumed that about 20% of the population would be aged 6-59 months. On this basis, it was expected that there would be about 1259 children in this age group in the study villages. Estimates of the population and main ethnic group in the villages, as supplied by SC-US, are shown below:

	Compounds	Population	Tribe	Other groups
Qarca	335	2600	Hazara	
Sah Ahmada	22	195	Pakhtoon	
Mirak	110	1050	Hazara	(6 houses Pakhtoon)
Jamal	86	625	Hazara	(5 houses Pakhtoon)
Logari	20	155	Pakhtoon	
Kohna Deh	45	305	Pakhtoon	(5 houses Hazara)
Jangalak	120	1050	Hazara	
Qaluch	150	1150	Hazara	
Nialkahn	47	315	Pakhtoon	

The ratio of Pakhtoon to Hazara was estimated to be 1:5, and it was intended that the sample should reflect this.

3.3.3 Due to the constraint of the time available for fieldwork (4 weeks), it was decided to interview in only 6 villages. The first stage of sampling was therefore a random selection of 6 of the 8 villages with probability of selection proportional to population size. The target sample sizes for each selected village are shown below together with the achieved sample sizes.